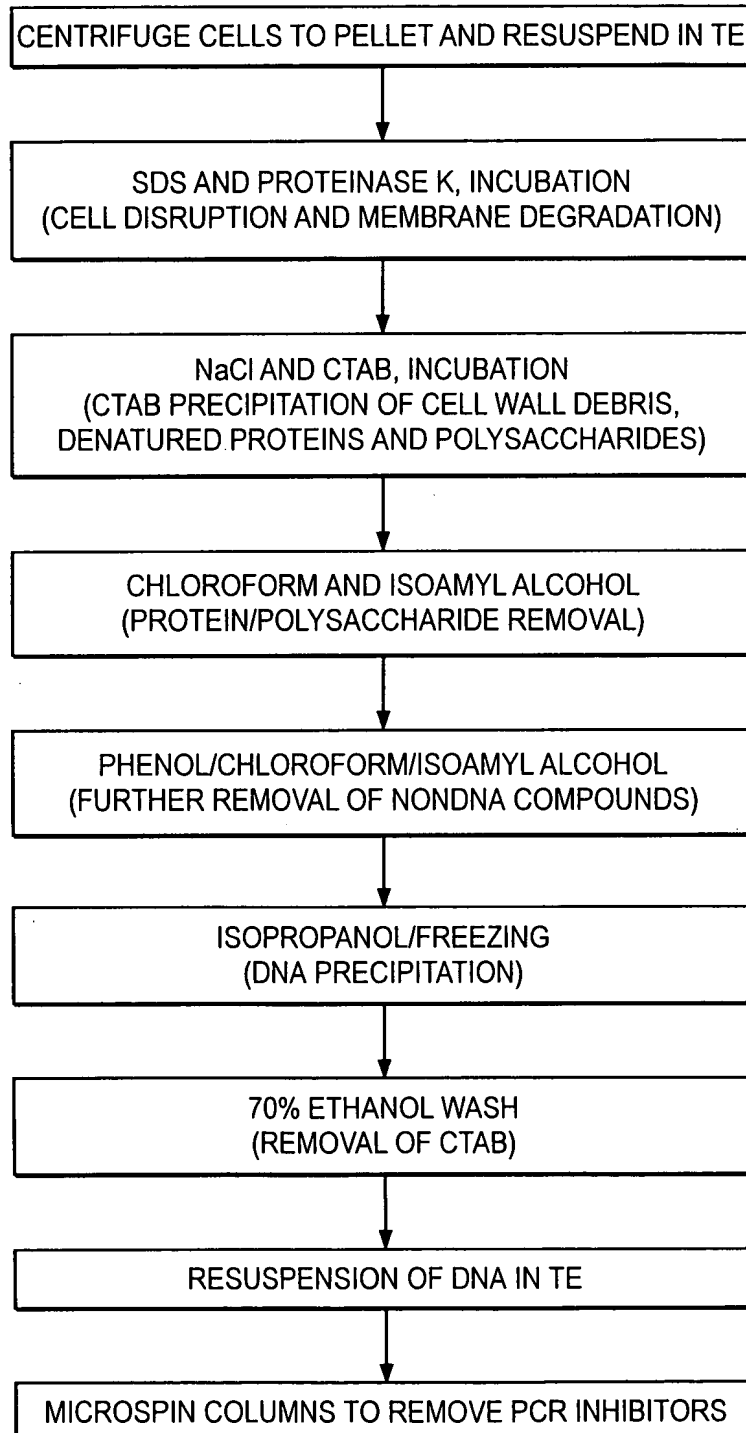
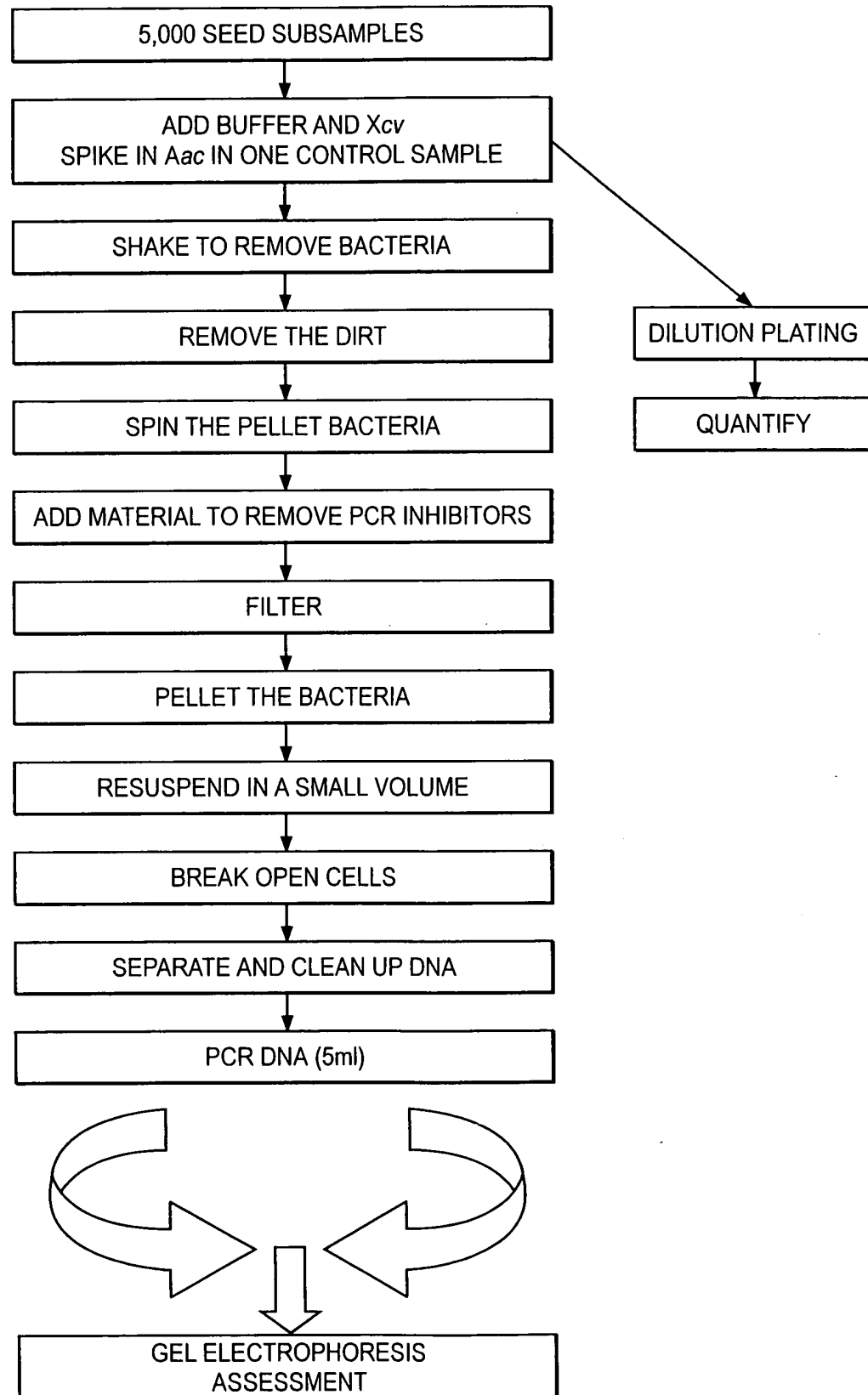




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**FIG. 1**



**FIG. 2**



**FIG. 3b**

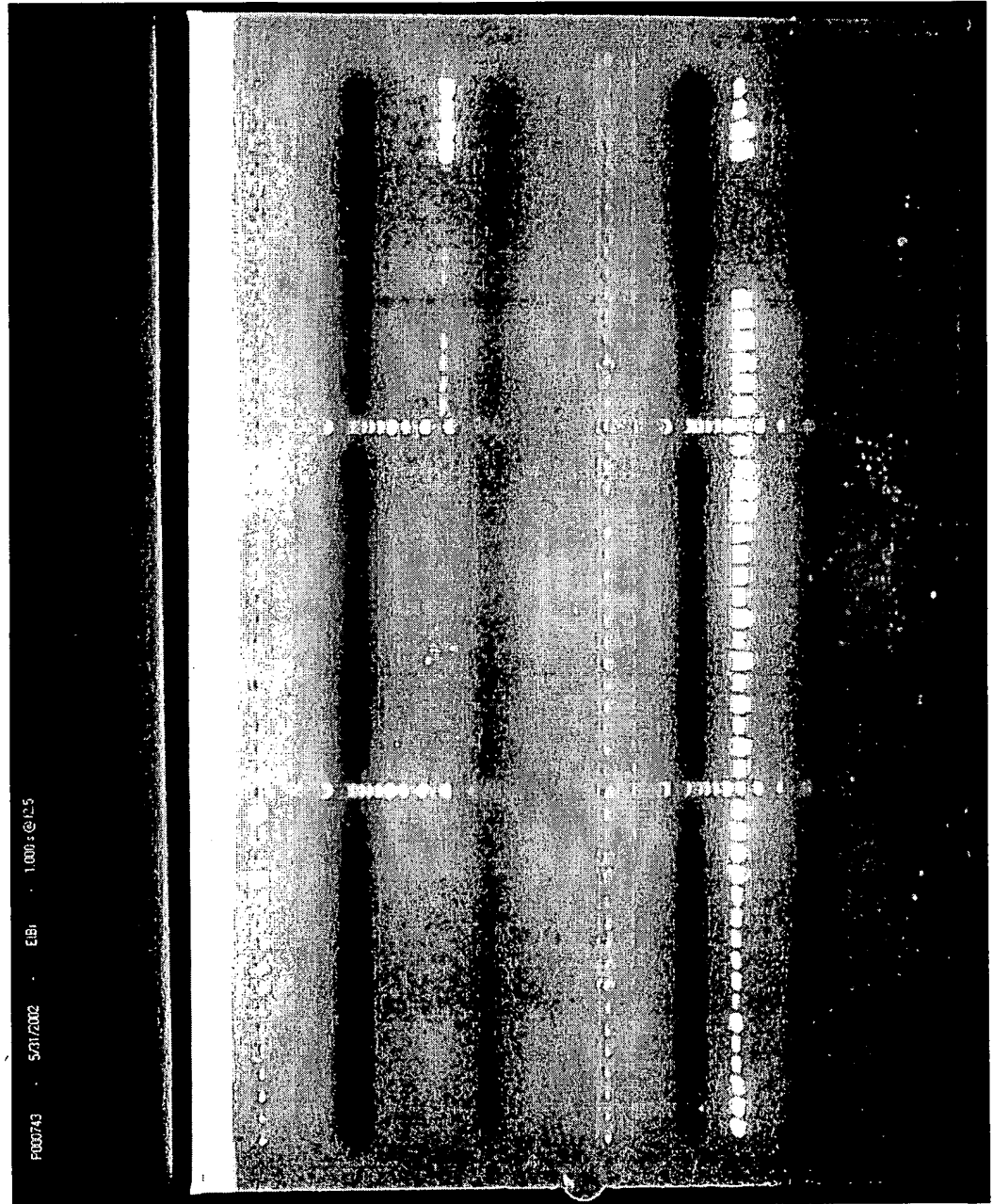
BFB-PCR SEED HEALTH TESTING-50RXNS (20 SAMPLES)

PCR #: 975

**ACIDOVORAX REACTIONS**                      **XANTHOMONAS REACTIONS**

	1	2	3	4	5	6	7	8	9	10	11	12
<b>A</b>	#1	#1	#9	#9	#17	#17	#1	#1	#9	#9	#17	#17
<b>B</b>	#2	#2	#10	#10	#18	#18	#2	#2	#10	#10	#18	#18
<b>C</b>	#3	#3	#11	#11	#19 SEED CONTROL	#19 SEED CONTROL	#3	#3	#11	#11	#19 SEED CONTROL	#19 SEED CONTROL
<b>D</b>	#4	#4	#12	#12	#20 SEED CONTROL	#20 SEED CONTROL	#4	#4	#12	#12	#20 SEED CONTROL	#20 SEED CONTROL
<b>E</b>	#5	#5	#13	#13	-H <sub>2</sub> O CONTROL	-H <sub>2</sub> O CONTROL	#5	#5	#13	#13	-H <sub>2</sub> O CONTROL	-H <sub>2</sub> O CONTROL
<b>F</b>	#6	#6	#14	#14	-TE CONTROL	-TE CONTROL	#6	#6	#14	#14	-TE CONTROL	-TE CONTROL
<b>G</b>	#7	#7	#15	#15	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac	#7	#7	#15	#15	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac
<b>H</b>	#8	#8	#16	#16	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac	#8	#8	#16	#16	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac

FIG. 3c





**FIG. 4b**

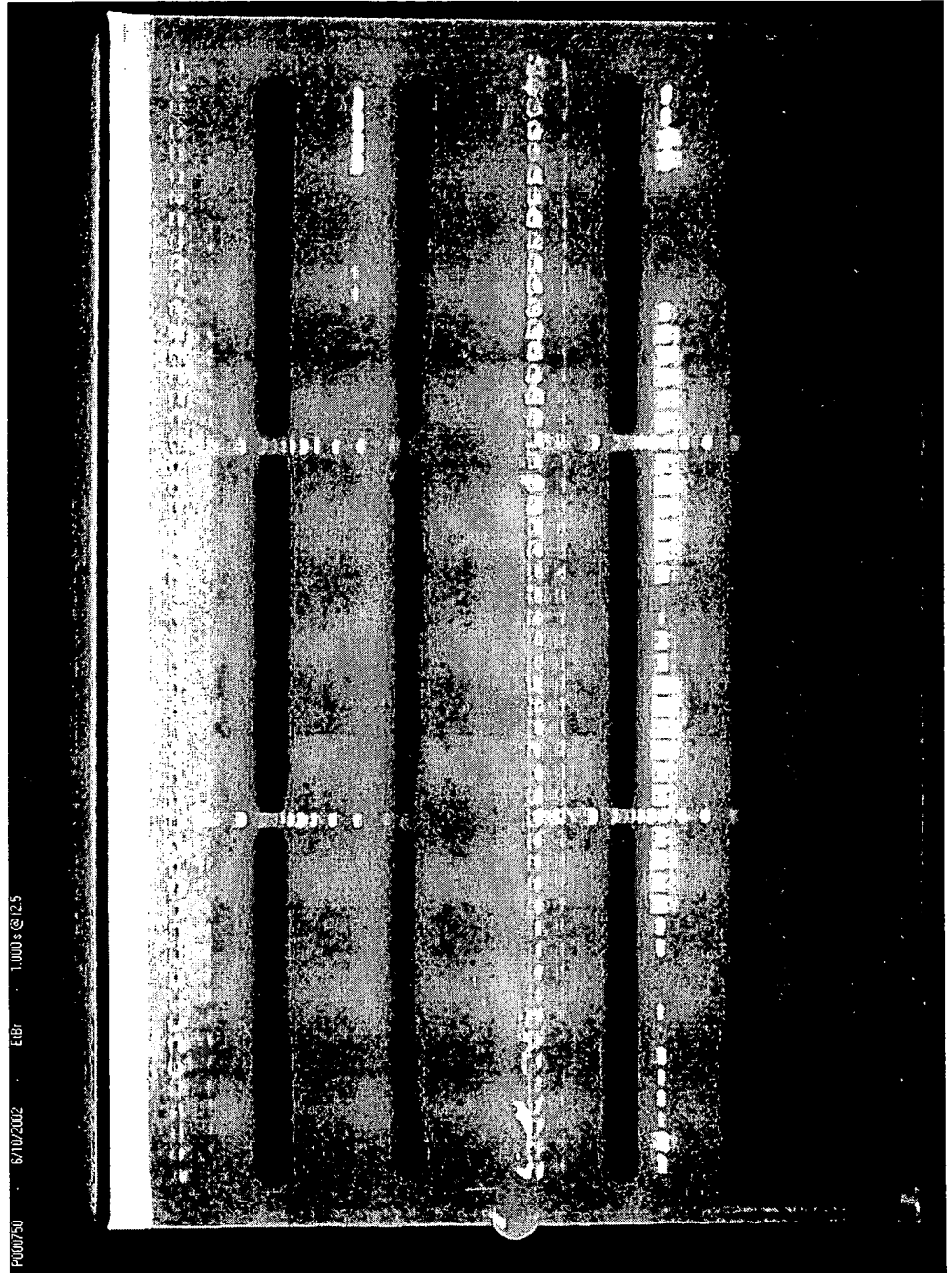
BFB-PCR SEED HEALTH TESTING-50RXNS (20 SAMPLES)

PCR #: 980

**ACIDOVORAX REACTIONS**                      **XANTHOMONAS REACTIONS**

	1	2	3	4	5	6	7	8	9	10	11	12
<b>A</b>	#1	#1	#9	#9	#17	#17	#1	#1	#9	#9	#17	#17
<b>B</b>	#2	#2	#10	#10	#18	#18	#2	#2	#10	#10	#18	#18
<b>C</b>	#3	#3	#11	#11	#19 SEED CONTROL	#19 SEED CONTROL	#3	#3	#11	#11	#19 SEED CONTROL	#19 SEED CONTROL
<b>D</b>	#4	#4	#12	#12	#20 SEED CONTROL	#20 SEED CONTROL	#4	#4	#12	#12	#20 SEED CONTROL	#20 SEED CONTROL
<b>E</b>	#5	#5	#13	#13	-H <sub>2</sub> O CONTROL	-H <sub>2</sub> O CONTROL	#5	#5	#13	#13	-H <sub>2</sub> O CONTROL	-H <sub>2</sub> O CONTROL
<b>F</b>	#6	#6	#14	#14	-TE CONTROL	-TE CONTROL	#6	#6	#14	#14	-TE CONTROL	-TE CONTROL
<b>G</b>	#7	#7	#15	#15	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac	#7	#7	#15	#15	⊕DNA CONTROL Xcv	⊕DNA CONTROL Xcv
<b>H</b>	#8	#8	#16	#16	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac	#8	#8	#16	#16	⊕DNA CONTROL Xcv	⊕DNA CONTROL Xcv

FIG. 4c







**FIG. 5b**

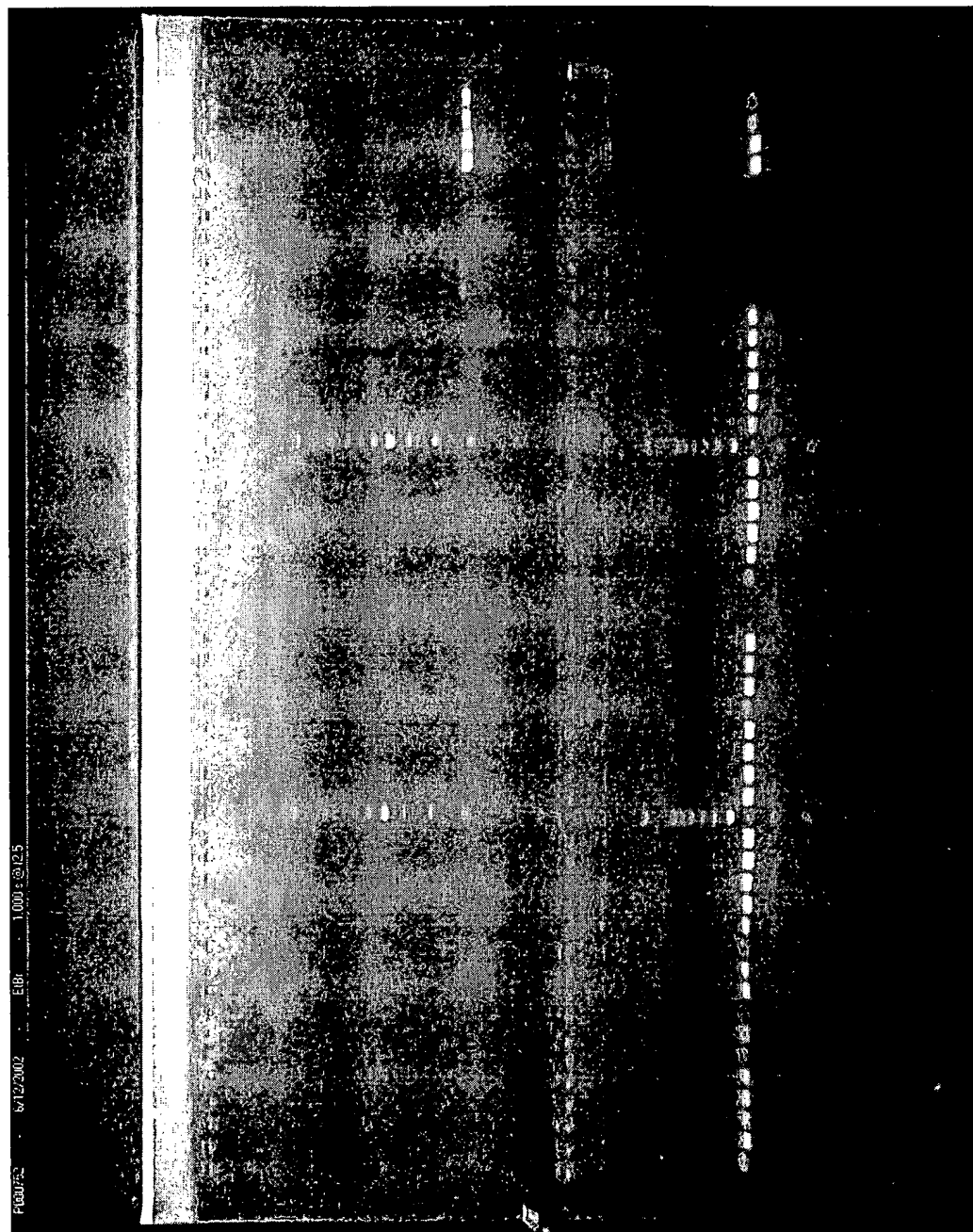
BFB-PCR SEED HEALTH TESTING-50RXNS (20 SAMPLES)

PCR #: 981

**ACIDOVORAX REACTIONS**                      **XANTHOMONAS REACTIONS**

	1	2	3	4	5	6	7	8	9	10	11	12
<b>A</b>	#1	#1	#9	#9	#17	#17	#1	#1	#9	#9	#17	#17
<b>B</b>	#2	#2	#10	#10	#18	#18	#2	#2	#10	#10	#18	#18
<b>C</b>	#3	#3	#11	#11	#19 SEED CONTROL	#19 SEED CONTROL	#3	#3	#11	#11	#19 SEED CONTROL	#19 SEED CONTROL
<b>D</b>	#4	#4	#12	#12	#20 SEED CONTROL	#20 SEED CONTROL	#4	#4	#12	#12	#20 SEED CONTROL	#20 SEED CONTROL
<b>E</b>	#5	#5	#13	#13	-H <sub>2</sub> O CONTROL	-H <sub>2</sub> O CONTROL	#5	#5	#13	#13	-H <sub>2</sub> O CONTROL	-H <sub>2</sub> O CONTROL
<b>F</b>	#6	#6	#14	#14	-TE CONTROL	-TE CONTROL	#6	#6	#14	#14	-TE CONTROL	-TE CONTROL
<b>G</b>	#7	#7	#15	#15	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac	#7	#7	#15	#15	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac
<b>H</b>	#8	#8	#16	#16	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac	#8	#8	#16	#16	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac

FIG. 5c



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**FIG. 6a****Bacterial Fruit Blotch**

Disease screen assay data sheet

WFB PCR # 984

Electrophoresis informationGel Concentration: 2.0%Buffer: 0.5X TBE

Amount of agarose used;

Volts: 100 Watts: 8 mAmps: 282.5g, 5.0g, (7.0g), other \_\_\_\_\_On: 1:15 Off: 2:45 Temp: RT

(circle one)

Volume of DNA sample: 5µlsTotal reaction volume: 50µls

Gel Lane	Aac Result	Xcv Result	Gel Lane	Aac Result	Xcv Result	Gel Lane	Aac Result	Xcv Result
1. 1 <u>Aac</u> Rxns	-		37. 17	-		73. 11		+
2. 1	-		38. 18	-		74. 11		+
3. 2	-		39. 18	-		75. 12		+
4. 2	-		40. 19	-		76. 12		+
5. 3	-		41. 19	-		77. 13		+
6. 3	-		42. 20	+		78. 13		+
7. 4	-		43. 20	+		79. 14		+
8. 4	-		44. H <sub>2</sub> O	-		80. 14		+
9. 5	-		45. H <sub>2</sub> O	-		81. 15		+
10. 5	-		46. TE	-		82. 15		+
11. 6	+		47. TE	-		83. 16		+
12. 6	-		48. DNA Hi	+		84. 16		+
13. 7	-		49. DNA Hi	+		85. Ladder		
14. 7	+		50. DNA Low	+		86. N/A		
15. 8	-		51. DNA Low	+		87. 17		+
16. 8	+		52. 1		+	88. 17		+
17. Ladder			53. 1		+	89. 18		+
18. 9	-		54. 2		+	90. 18		+
19. 9	-		55. 2		+	91. 19		+
20. 10	-		55. 3		+	92. 19		+
21. 10	-		57. 3		+	93. 20		-
22. 11	-		58. 4		+	94. 20		-
23. 11	-		59. 4		+	95. H <sub>2</sub> O		-
24. 12	-		60. 5		+	96. H <sub>2</sub> O		-
25. 12	-		61. 5		+	97. TE		-
26. 13	-		62. 6		+	98. TE		-
27. 13	-		63. 6		+	99. DNA Hi		+
28. 14	+		64. 7		+	100. DNA Hi		+
29. 14	+		65. 7		+	101. DNA Low		+
30. 15	+		66. 8		+	102. DNA Low		+
31. 15	+		67. 8		+	103.		
32. 16	-		68. Ladder			104.		
33. 16	-		69. 9		+	105.		
34. Ladder			70. 9		+	106.		
35. N/A			71. 10		+			
36. 17	-		72. 10		+			

Note: All samples are tested at a 1:50 dilution of the recovered (stock) DNA. NTC is a No Template Control

Sample#s	1 & 2	3 & 4	5 & 6	7 & 8	9 & 10	11 & 12	13 & 14	15 & 16	17 & 18
Positive			✓	✓			✓	✓	
Negative	✓	✓			✓	✓			✓

**FIG. 6b**

BFB-PCR SEED HEALTH TESTING-50RXNS (20 SAMPLES)

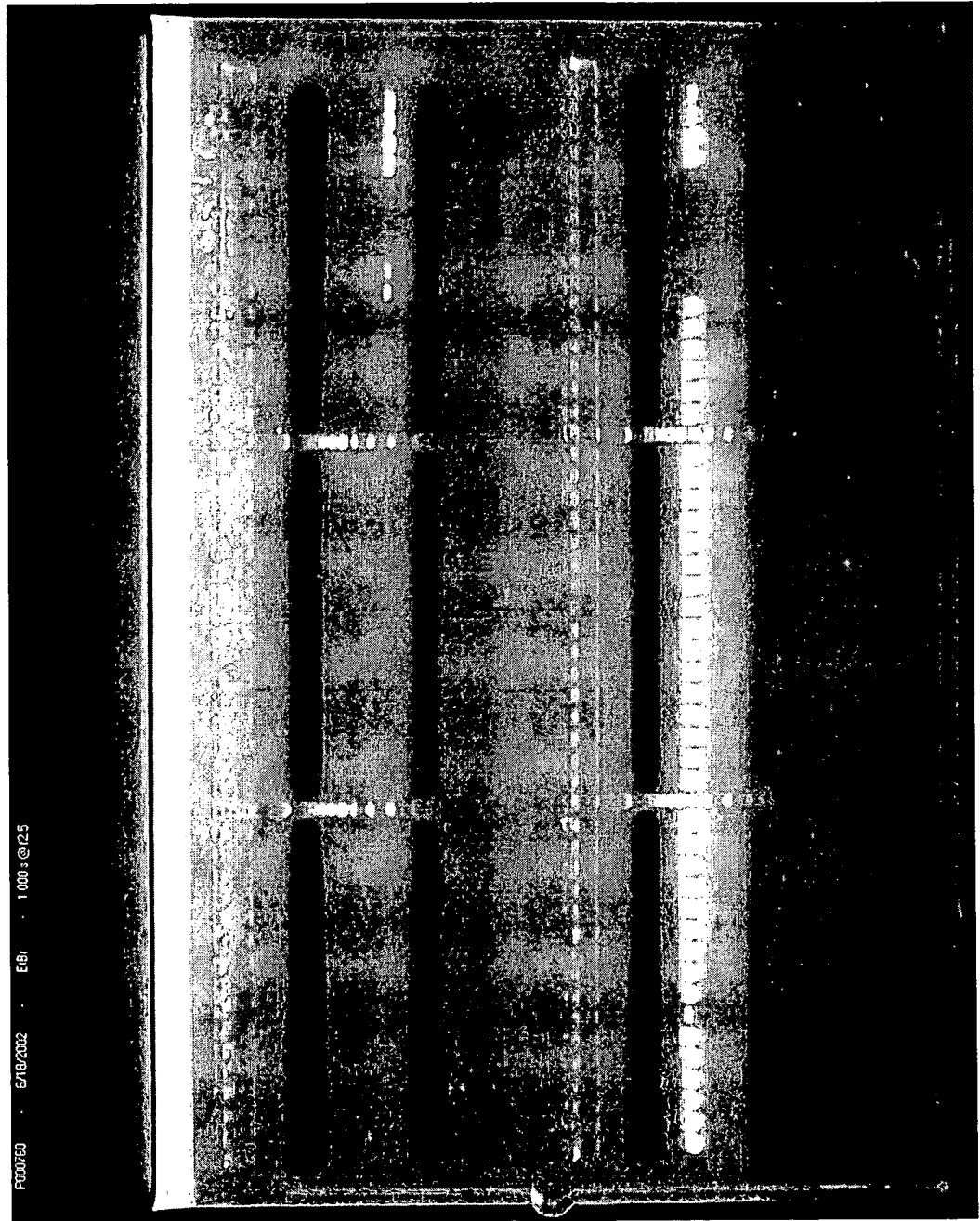
PCR #: 984

**XANTHOMONAS REACTIONS**

**ACIDOVORAX REACTIONS**

	1	2	3	4	5	6	7	8	9	10	11	12
<b>A</b>	#1	#1	#9	#9	#17	#17	#1	#1	#9	#9	#17	#17
<b>B</b>	#2	#2	#10	#10	#18	#18	#2	#2	#10	#10	#18	#18
<b>C</b>	#3	#3	#11	#11	#19 SEED CONTROL	#19 SEED CONTROL	#3	#3	#11	#11	#19 SEED CONTROL	#19 SEED CONTROL
<b>D</b>	#4	#4	#12	#12	#20 SEED CONTROL	#20 SEED CONTROL	#4	#4	#12	#12	#20 SEED CONTROL	#20 SEED CONTROL
<b>E</b>	#5	#5	#13	#13	-H <sub>2</sub> O CONTROL	-H <sub>2</sub> O CONTROL	#5	#5	#13	#13	-H <sub>2</sub> O CONTROL	-H <sub>2</sub> O CONTROL
<b>F</b>	#6	#6	#14	#14	-TE CONTROL	-TE CONTROL	#6	#6	#14	#14	-TE CONTROL	-TE CONTROL
<b>G</b>	#7	#7	#15	#15	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac	#7	#7	#15	#15	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac
<b>H</b>	#8	#8	#16	#16	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac	#8	#8	#16	#16	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac

FIG. 6c



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**FIG. 7a****Bacterial Fruit Blotch**

Disease screen assay data sheet

WFB PCR # 987

Electrophoresis informationGel Concentration: 2.0%Buffer: 0.5X TBE

Amount of agarose used;

Volts: 100 Watts: 9 mAmps: 282.5g, 5.0g, 7.0g, other \_\_\_\_\_On: 2:00 Off: 3:30 Temp: RT

(circle one)

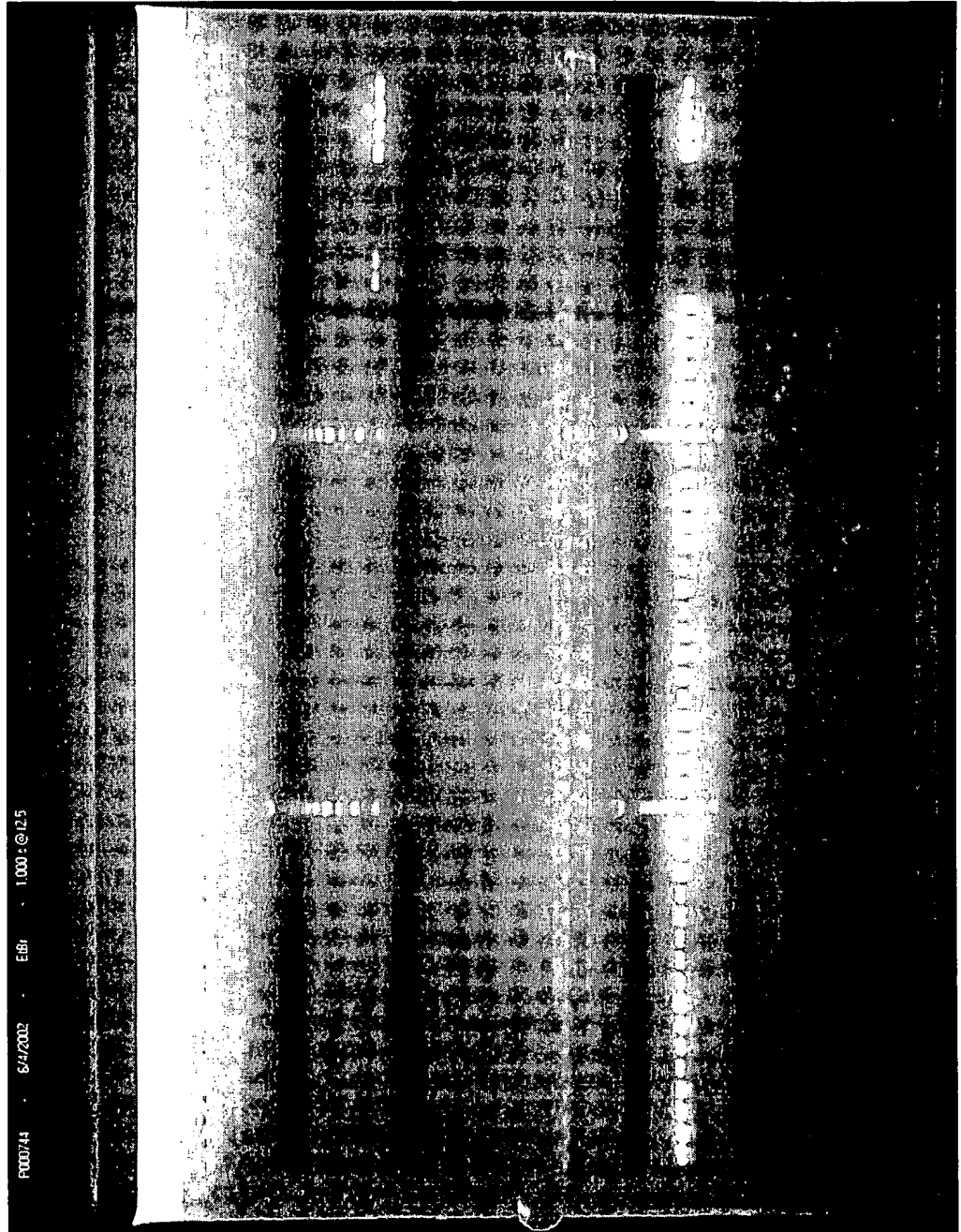
Volume of DNA sample: 5µlsTotal reaction volume: 50µls

Gel Lane	Aac Result	Xcv Result	Gel Lane	Aac Result	Xcv Result	Gel Lane	Aac Result	Xcv Result
1. 1 <u>Aac</u> Rxns	-		37. 17	+		73. 11		+
2. 1	-		38. 18	+		74. 11		+
3. 2	-		39. 18	+		75. 12		+
4. 2	-		40. 19	-		76. 12		+
5. 3	+		41. 19	-		77. 13		+
6. 3	+		42. 20	+		78. 13		+
7. 4	+		43. 20	+		79. 14		+
8. 4	+		44. H <sub>2</sub> O	-		80. 14		+
9. 5	+		45. H <sub>2</sub> O	-		81. 15		+
10. 5	+		46. TE	-		82. 15		+
11. 6	+		47. TE	-		83. 16		+
12. 6	+		48. DNA Hi	+		84. 16		+
13. 7	-		49. DNA Hi	+		85. Ladder		
14. 7	-		50. DNA Low	+		86. N/A		
15. 8	-		51. DNA Low	+		87. 17		+
16. 8	-		52. 1		+	88. 17		+
17. Ladder			53. 1		+	89. 18		+
18. 9	-		54. 2		+	90. 18		+
19. 9	-		55. 2		+	91. 19		+
20. 10	-		55. 3		+	92. 19		+
21. 10	-		57. 3		+	93. 20		-
22. 11	+		58. 4		+	94. 20		-
23. 11	+		59. 4		+	95. H <sub>2</sub> O		-
24. 12	-		60. 5		+	96. H <sub>2</sub> O		-
25. 12	-		61. 5		+	97. TE		-
26. 13	-		62. 6		+	98. TE		-
27. 13	-		63. 6		+	99. DNA Hi		+
28. 14	-		64. 7		+	100. DNA Hi		+
29. 14	-		65. 7		+	101. DNA Low		+
30. 15	+		66. 8		+	102. DNA Low		+
31. 15	+		67. 8		+	103.		
32. 16	+		68. Ladder			104.		
33. 16	+		69. 9		+	105.		
34. Ladder			70. 9		+	106.		
35. N/A			71. 10		+			
36. 17	+		72. 10		+			

Note: All samples are tested at a 1:50 dilution of the recovered (stock) DNA. NTC is a No Template Control

Sample#s	1 & 2	3 & 4	5 & 6	7 & 8	9 & 10	11 & 12	13 & 14	15 & 16	17 & 18
Positive		✓	✓			✓		✓	✓
Negative	✓			✓	✓		✓		

FIG. 9c





**FIG. 7b**

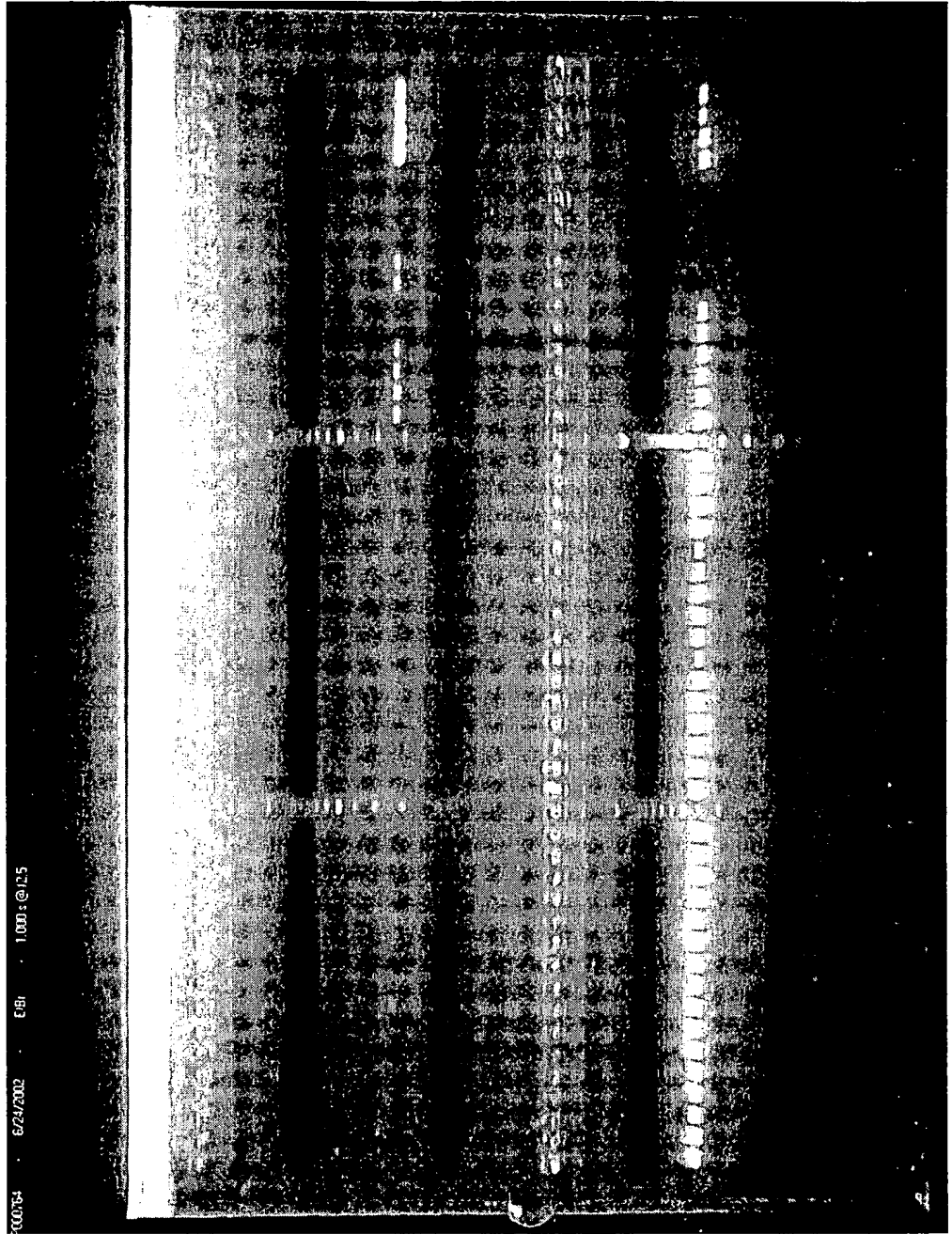
BFB-PCR SEED HEALTH TESTING-50RXNS (20 SAMPLES)

PCR #: 984

**ACIDOVORAX REACTIONS**                      **XANTHOMONAS REACTIONS**

	1	2	3	4	5	6	7	8	9	10	11	12
<b>A</b>	#1	#1	#9	#9	#17	#17	#1	#1	#9	#9	#17	#17
<b>B</b>	#2	#2	#10	#10	#18	#18	#2	#2	#10	#10	#18	#18
<b>C</b>	#3	#3	#11	#11	#19 SEED CONTROL	#19 SEED CONTROL	#3	#3	#11	#11	#19 SEED CONTROL	#19 SEED CONTROL
<b>D</b>	#4	#4	#12	#12	#20 SEED CONTROL	#20 SEED CONTROL	#4	#4	#12	#12	#20 SEED CONTROL	#20 SEED CONTROL
<b>E</b>	#5	#5	#13	#13	-H <sub>2</sub> O CONTROL	-H <sub>2</sub> O CONTROL	#5	#5	#13	#13	-H <sub>2</sub> O CONTROL	-H <sub>2</sub> O CONTROL
<b>F</b>	#6	#6	#14	#14	-TE CONTROL	-TE CONTROL	#6	#6	#14	#14	-TE CONTROL	-TE CONTROL
<b>G</b>	#7	#7	#15	#15	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac	#7	#7	#15	#15	⊕DNA CONTROL Xcv	⊕DNA CONTROL Xcv
<b>H</b>	#8	#8	#16	#16	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac	#8	#8	#16	#16	⊕DNA CONTROL Xcv	⊕DNA CONTROL Xcv

FIG. 7c



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**FIG. 8a****Bacterial Fruit Blotch**

Disease screen assay data sheet

WFB PCR # 993

Electrophoresis informationGel Concentration: 2.0%Buffer: 0.5X TBE

Amount of agarose used;

Volts: 130 Watts: 15 mAmps: 1172.5g, 5.0g, 7.0g, other 12g/600mlOn: 1:40 Off: 3:00 Temp: RT

(circle one)

*Run gel together with PCR #99*Volume of DNA sample: 5µlsTotal reaction volume: 50µls

<u>Gel Lane</u>	<u>Aac Result</u>	<u>Xcv Result</u>	<u>Gel Lane</u>	<u>Aac Result</u>	<u>Xcv Result</u>	<u>Gel Lane</u>	<u>Aac Result</u>	<u>Xcv Result</u>
1. 1 <u>Aac Rxns</u>	+		37. 17	-		73. 11		+
2. 1	+		38. 18	-		74. 11		+
3. 2	+		39. 18	-		75. 12		+
4. 2	+		40. 19	-		76. 12		+
5. 3	-		41. 19	-		77. 13		+
6. 3	-		42. 20	+		78. 13		+
7. 4	+		43. 20	+		79. 14		+
8. 4	+		44. H <sub>2</sub> O	-		80. 14		+
9. 5	+		45. H <sub>2</sub> O	-		81. 15		+
10. 5	-					82. 15		+
11. 6	+		46. TE	-		83. 16		+
12. 6	+		47. TE	-		84. 16		+
13. 7	+		48. DNA Hi	+		85. Ladder		
14. 7	+		49. DNA Hi	+		86. N/A		
15. 8	-		50. DNA Low	+		87. 17		+
16. 8	+		51. DNA Low	+		88. 17		+
17. Ladder			52. 1		+	89. 18		+
18. 9	-		53. 1		+	90. 18		+
19. 9	-		54. 2		+	91. 19		+
20. 10	-		55. 2		+	92. 19		+
21. 10	-		55. 3		+	93. 20		-
22. 11	-		57. 3		+	94. 20		-
23. 11	-		58. 4		+	95. H <sub>2</sub> O		-
24. 12	-		59. 4		+	96. H <sub>2</sub> O		-
25. 12	-		60. 5		+			
26. 13	-		61. 5		+	97. TE		-
27. 13	-		62. 6		+	98. TE		-
28. 14	-		63. 6		+	99. DNA Hi		+
29. 14	-		64. 7		+	100. DNA Hi		+
30. 15	-		65. 7		+	101. DNA Low		+
31. 15	-		66. 8		+	102. DNA Low		+
32. 16	-		67. 8		+	103.		
33. 16	-		68. Ladder			104.		
34. Ladder			69. 9		+	105.		
35. N/A			70. 9		+	106.		
36. 17	-		71. 10		+			
			72. 10		+			

Note: All samples are tested at a 1:50 dilution of the recovered (stock) DNA. NTC is a No Template Control

<u>Sample#s</u>	<u>1 &amp; 2</u>	<u>3 &amp; 4</u>	<u>5 &amp; 6</u>	<u>7 &amp; 8</u>	<u>9 &amp; 10</u>	<u>11 &amp; 12</u>	<u>13 &amp; 14</u>	<u>15 &amp; 16</u>	<u>17 &amp; 18</u>
Positive	✓	✓	✓	✓					
Negative					✓	✓	✓	✓	✓

**FIG. 8b**

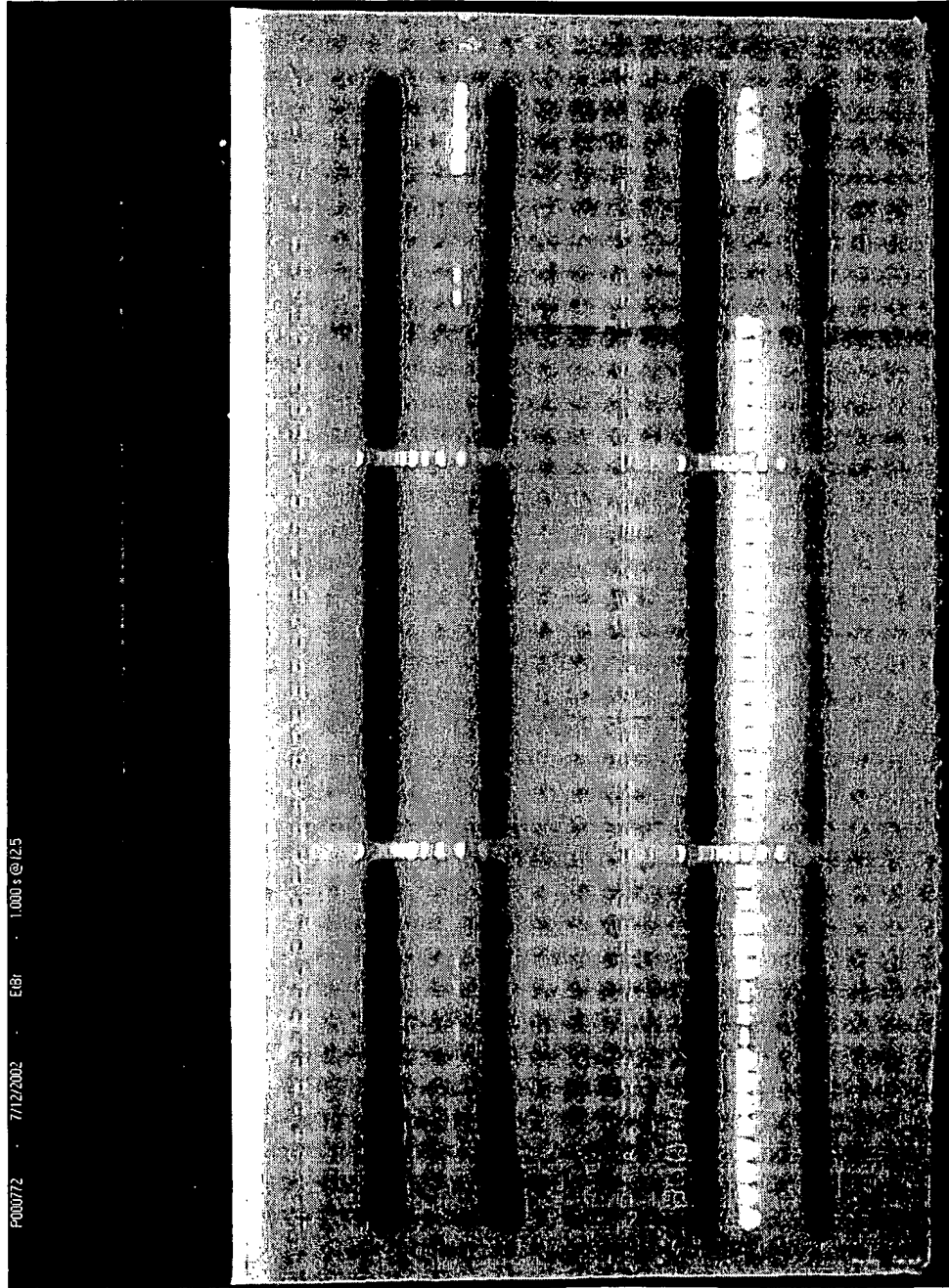
BFB-PCR SEED HEALTH TESTING-50RXNS (20 SAMPLES)

PCR #: 993

**ACIDOVORAX REACTIONS** **XANTHOMONAS REACTIONS**

	1	2	3	4	5	6	7	8	9	10	11	12
<b>A</b>	#1	#1	#9	#9	#17	#17	#1	#1	#9	#9	#17	#17
<b>B</b>	#2	#2	#10	#10	#18	#18	#2	#2	#10	#10	#18	#18
<b>C</b>	#3	#3	#11	#11	#19 SEED CONTROL	#19 SEED CONTROL	#3	#3	#11	#11	#19 SEED CONTROL	#19 SEED CONTROL
<b>D</b>	#4	#4	#12	#12	#20 SEED CONTROL	#20 SEED CONTROL	#4	#4	#12	#12	#20 SEED CONTROL	#20 SEED CONTROL
<b>E</b>	#5	#5	#13	#13	-H <sub>2</sub> O CONTROL	-H <sub>2</sub> O CONTROL	#5	#5	#13	#13	-H <sub>2</sub> O CONTROL	-H <sub>2</sub> O CONTROL
<b>F</b>	#6	#6	#14	#14	-TE CONTROL	-TE CONTROL	#6	#6	#14	#14	-TE CONTROL	-TE CONTROL
<b>G</b>	#7	#7	#15	#15	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac	#7	#7	#15	#15	⊕DNA CONTROL Xcv	⊕DNA CONTROL Xcv
<b>H</b>	#8	#8	#16	#16	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac	#8	#8	#16	#16	⊕DNA CONTROL Xcv	⊕DNA CONTROL Xcv

FIG. 8c





**FIG. 9b**

BFB-PCR SEED HEALTH TESTING-50RXNS (20 SAMPLES)

PCR #: 976

**ACIDOVORAX REACTIONS**

**XANTHOMONAS REACTIONS**

	1	2	3	4	5	6	7	8	9	10	11	12
<b>A</b>	#1	#1	#9	#9	#17	#17	#1	#1	#9	#9	#17	#17
<b>B</b>	#2	#2	#10	#10	#18	#18	#2	#2	#10	#10	#18	#18
<b>C</b>	#3	#3	#11	#11	#19 SEED CONTROL	#19 SEED CONTROL	#3	#3	#11	#11	#19 SEED CONTROL	#19 SEED CONTROL
<b>D</b>	#4	#4	#12	#12	#20 SEED CONTROL	#20 SEED CONTROL	#4	#4	#12	#12	#20 SEED CONTROL	#20 SEED CONTROL
<b>E</b>	#5	#5	#13	#13	-H <sub>2</sub> O CONTROL	-H <sub>2</sub> O CONTROL	#5	#5	#13	#13	-H <sub>2</sub> O CONTROL	-H <sub>2</sub> O CONTROL
<b>F</b>	#6	#6	#14	#14	-TE CONTROL	-TE CONTROL	#6	#6	#14	#14	-TE CONTROL	-TE CONTROL
<b>G</b>	#7	#7	#15	#15	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac	#7	#7	#15	#15	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac
<b>H</b>	#8	#8	#16	#16	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac	#8	#8	#16	#16	⊕DNA CONTROL Aac	⊕DNA CONTROL Aac